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a support chassis mounted to said back support for supporting said back support at a desired incline with respect to the posts, and at a desired seat depth with respect to the seat; said support chassis including a pair of side plates with one side plate being adapted to be disposed between each post and said back support, and at least one horizontal tube attached to and extending transversely between said side plates across said back support; and

an attachment assembly operably connected to said support chassis and connectable to the posts to allow said support chassis and back support to be readily removed from or attached to the chair.

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6. (Twice Amended) The backrest system as set forth in claim 2, wherein said attachment assembly further includes a pair of bands with one band being adapted to be positioned around each of said posts at a desired height, a pair of adapters having axially extending openings formed therein with one adapter being adapted to be positioned opposite to said post inside each band, and at least one wedging mechanism adapted to be positioned inside each band between said post and said adapter to force said band to remain in place along said post.

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18. (Twice Amended) A backrest system for a chair for seating an individual, said chair having a seat and upright posts extending upwardly from the rear of the seat in a spaced apart, substantially parallel manner, said backrest system comprising:

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a back support adapted to be removably positioned between said posts to support the back of an individual sitting on the chair seat;

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a support chassis adapted to be disposed between said posts and mounted to said back support for supporting said back support at a desired incline with respect to said posts; and

a two-point attachment assembly connectable to each of said posts at a desired location along each post for releasably securing said support chassis to said posts.

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21. (Twice Amended) The backrest system as set forth in claim 20, wherein said support chassis further includes a pair of side plates disposed on opposite sides of said back support, said side plates being adapted to be disposed between said back support and said posts, each side plate having a horizontally extending slot formed therein to permit forward and rearward movement of said back support to adjust the seat depth.

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22. (Twice Amended) A backrest system for a chair for seating an individual, said chair having a seat and upright posts extending upwardly from the rear of the seat in a spaced apart, substantially parallel manner, said backrest system comprising:

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a back support adapted to be removably positioned between said posts to support the back of an individual sitting on the chair seat;

a support chassis adapted to be disposed between said posts and mounted to said back support for supporting said back support at a desired incline with respect to said posts, said support chassis being movable forwardly and rearwardly with respect to said posts to allow for positioning of said back support at a desired seat depth with respect to said seat, said support chassis further including a pair of side plates disposed on opposite sides of said back support, said side plates being adapted to be disposed between said back support and said posts, each side plate having a horizontally extending slot formed therein to permit forward and rearward movement of said back support to adjust the seat

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depth, said support chassis further including a pair of swivel clamps mounted to said side plates having circumferentially extending slots formed therein to permit angular rotation of said back support with respect to said posts to adjust the incline of the back support; and

an attachment assembly connectable to each of said posts for releasably securing said support chassis to said posts.

26. (Twice Amended) A backrest system for a chair for seating an individual, said chair having a seat and upright posts extending upwardly from the rear of the seat in a spaced apart, substantially parallel manner, said backrest system comprising:

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a back support adapted to be removably positioned between said posts to support the back of an individual sitting on the chair seat;

a support chassis adapted to be disposed between said posts and mounted to said back support for supporting said back support at a desired incline with respect to said posts;

a pair of support tubes attached to said support chassis and extending vertically therefrom in a substantially parallel, spaced apart manner; and

an attachment assembly connectable to each of said posts for releasably securing said support chassis to said posts;

said back support including a plurality of pads mounted to said support tubes at desired locations based upon support needs and proportions of the individual; each of said pads being movable inwardly, outwardly and laterally with respect to said support tubes and at forward and rearward inclines with respect to said support tubes to provide a support surface for the individual sitting on the seat based upon that individual's

dimensions and support needs, each pad being attached to at least one of said support tubes by an elbow joint that permits inward, outward and lateral movement of said pad.

2239. (Twice Amended) The backrest system as set forth in claim 18 wherein said back support includes a substantially rigid backing plate and an insert attached to a forwardly presented face of said backing plate against which the back of the [user]individual rests when sitting in the chair; said backing plate being supported by said support chassis at the desired incline.

40. (Twice Amended) A backrest system for a chair for seating an individual, said chair having a seat and a pair of upright posts extending upwardly from the rear of the seat in a spaced apart manner, said backrest system comprising:

a support frame adapted to be releasably secured between said posts at one location along each post, said support frame being horizontally movable forwardly and rearwardly with respect to said posts to position said support frame at a desired seat depth with respect to said seat; and

a back support mounted to said support frame to provide a surface against which the back of the individual rests when seated in the chair.

69. (Twice Amended) A backrest system for a chair for seating an individual, said chair having a seat and upright posts extending upwardly from the rear of the seat in a spaced apart, substantially parallel manner, said backrest system comprising:

a back support adapted to be removably positioned between said posts to support the back of an individual sitting on the chair seat, including a plurality of pads with each pad being positioned to support a particular region of the individual's back, each pad

having a backing plate and an insert attached to a forwardly presented face of said
C backing plate against which the region of the back of the individual ^{can rest} rests;

B a support chassis adapted to be disposed between said posts and mounted to said back support for supporting each pad of said back support at a desired location with respect to the individual's back; and

a two-point attachment assembly connectable to [each of]said posts at one[a] desired point of attachment [location] along each post for releasably securing said support chassis to said posts.

74. (Twice Amended) A ball and socket joint comprising:

B a substantially spherical ball including a first section and a second section formed by passing a cutting plane through the ball, said first section having a maximum circumference corresponding to that of a small circle of the ball, said second section having a maximum circumference corresponding to that of a great circle of the ball, said first and second sections having spherical outer surface areas terminating in juxtaposed planar base surfaces defined by said cutting plane, said planar base surfaces having diameters corresponding to a diameter of the small circle of the ball;

a socket having a cavity formed therein that is sized to receive at least a portion of said ball; and

said first section of said ball being movable inwardly towards and outwardly away from [with respect to] said second section of said ball, said ball being in an unlocked position permitting rotation of said socket with respect to said ball when the planar base surface of said first section is in abutment with the planar base surface of said second section of said ball; said ball being in a locked position preventing movement of said

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socket with respect to said ball when said first section is moved [radially] outwardly away and spaced from the planar base surface of said second section and the spherical outer surface of said first section is in [into] engagement with the cavity of said socket.

78. (Twice Amended) A ball and socket joint comprising:

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a ball including a first section and a second section, said first section of said ball being constructed from a nylon material, said second section of said ball [is] being constructed from a strong engineering plastic material;

a socket having a cavity formed therein that is sized to receive the first section of said ball and at least a portion of the second section of said ball; and

said first section of said ball being movable inwardly towards the second section of the ball and outwardly away from [with respect to] said second section of said ball into engagement with the socket, said ball being in an unlocked position permitting rotation of said socket about [with respect to] said ball when said first section is in abutment with said second section of said ball; said ball being in a locked position preventing movement of said socket with respect to said ball when said first section is moved [radially] outwardly away from said second section into engagement with said socket.

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78. (Twice Amended) A ball and socket joint comprising:

a substantially spherical ball including a first [section,] segment and a second segment[section], said second segment having a threaded opening extending radially therethrough[said second section of said ball], said first and second [sections] segments being formed by passing a cutting plane through the ball, said first [section] segment having a maximum circumference corresponding to that of a small circle of the ball, said

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second [section]segment having a maximum circumference corresponding to that of a great circle of the ball, said first and second segments having outer surface zones terminating in juxtaposed planar base surfaces defined by said cutting plane, said planar base surfaces having diameters corresponding to a diameter of the small circle of the ball;

a socket having a cavity formed therein that is sized to receive a portion of said ball;

a threaded stud attached to said first [section]segment of said ball and adapted to be engaged by and disposed in the threaded opening of the second [section]segment, said stud extending outwardly from said socket, said stud being movable within said opening inwardly to an extended position and outwardly to a retracted position, said stud moving said first [section]segment of said ball into abutment with said second [section]segment when said stud is in the retracted position to permit said ball to rotate freely in said socket, said stud moving the planar base surface of said first [section]segment of said ball outwardly away and spaced from the planar base surface of said second [section]segment and the outer surface zone of the first segment into engagement with the cavity of said socket when said stud is in the extended position to prevent rotation of said ball in said socket.

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3992 (Once Amended) A backrest system for releasable attachment to a chair, the chair having a seat and upright posts extending upwardly from the rear of the seat in a spaced apart, substantially parallel manner, said backrest system comprising:

a back support adapted to be positioned generally between the posts to provide a surface against which the back of an individual rests when the individual sits on the chair seat;

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a support chassis mounted to said back support for supporting said back support at a desired incline with respect to the posts, and at a desired seat depth with respect to the seat; and

a two-point attachment assembly [for]adapted to removably [securing]secure said support chassis to the chair, said attachment assembly being connectable to [each]said posts at [a] one desired [location]point of attachment along each post.

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1196. (Once Amended) A ball and socket joint comprising:

a substantially spherical ball including a first section[,] and a second section[,] having a threaded opening extending therethrough[said second section of said ball], said first and second sections having spherical outer surface areas terminating in juxtaposed planar base surfaces defined by ^asaid cutting plane, said planar base surfaces having diameters corresponding to a diameter of ^athe small circle of the ball;

a socket having a cavity formed therein that is sized to receive a portion of said ball, said socket including a base having said cavity formed therein, and a bracket secured to said base when said ball is positioned inside said cavity, said bracket having an inner edge positioned around a portion of said ball;

a threaded stud secured to said first section of said ball and extending through said opening in said second section outwardly from said socket, said stud being movable within said opening inwardly to an extended position and outwardly to a retracted position, said stud moving said first section of said ball into abutment with said second section when said stud is in the retracted position to permit said ball to rotate freely in said socket, said stud moving the planar base surface of said first section of said ball outwardly away and spaced from the planar base surface of said second